



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,990	08/17/2001	Wen-Shi Huang	H010019	8682

34003 7590 04/06/2004

INTELLECTUAL PROPERTY SOLUTIONS, INCORPORATED
5717 COLFAX AVENUE
ALEXANDRIA, VA 22311

EXAMINER

PATEL, NIHIR B

ART UNIT PAPER NUMBER

3743

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/930,990	Applicant(s) HUANG ET AL.	
	Examiner Nihir Patel	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 10th, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed March 10th, 2004 have been fully considered but they are not persuasive. The applicant argues that the figures of Hsieh clearly illustrate that the fan 13 is an axial flow fan, not a centrifugal fan as in the present application. The examiner disagrees. The Hsieh reference is not relied for the type of fan but rather on "the entire rotary shaft being located above the lower portion of the second cooling fins". Since the applicant has not pointed out the criticality of having a centrifugal fan over an axial fan, the type of fan used is simply a matter of design choice.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 10 through 14, 16 through 19, and 21 through 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Budelman US Patent No. 6,244,331 in view of Hsieh US Patent No. 5,377,745. Budelman discloses the applicant's invention as claimed with the exception of providing an entire rotary shaft being located above the lower portion of the second cooling fins.

Art Unit: 3743

Hsieh discloses a cooling device for central processing unit that does provide an entire rotary shaft being located above the lower portion of the second cooling fins (see figure 3). Therefore it would be obvious to modify Budelman's invention by providing an entire rotary shaft being located above the lower portion of the second cooling fins in order to improve the heat transfer process.

Since the applicant has not pointed out the criticality of having a centrifugal fan over an axial fan, the type of fan used is simply a matter of design choice.

Claims 9, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Budelman US Patent No. 6,244,331 in view of Miyahara et al. US Patent No. 5,940,268.

Budelman discloses the applicant's invention as claimed with the exception of providing a cover that serves as an air seal to keep airtight.

Miyahara discloses a heat sink and electronic device employing the same that does provide a cover that serves as an air seal to keep airtight (see figure 4). Therefore it would be obvious to modify Budelman's invention by providing a cover that serves as an air seal to keep airtight in order to reduce the size and to increase the cooling process.

Since the applicant has not pointed out the criticality of having a centrifugal fan over an axial fan, the type of fan used is simply a matter of design choice.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

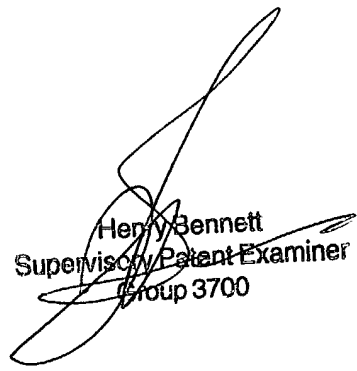
Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can

Art Unit: 3743

normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP

March 31st, 2004



Henry Bennett
Supervisory Patent Examiner
Group 3700